

## **ABSTRACT**

**[53]** Certain embodiments of the invention may be found in an single chip satellite set-top box solution that comprises demodulation, decoding and audio/video display functions integrated within a single chip. The single chip solution for the satellite set-top box is adapted to provide demodulation, display, and other related set-top box functions for a system that may be adapted to handle two incoming data streams modulated using an 8PSK, 8PSK-turbo or QPSK scheme, for example. Accordingly, the single chip satellite set-top box solution comprise dual 8 PSK/8 PSK-turbo/QPSK demodulators, a MIPS CPU, a 16-bit DDR-SDRAM, graphics display capability for handling two channels, and audio/video decoders and DACs for handling two incoming channels. The single chip satellite set-top box solution may also comprise integrated peripheral support for major set top box functions including a smart card interface, IR receivers, and general purpose input/output (GP/IO) pins.